

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 03.039-ipw/PCT/ph	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. PCT/GB2004/002728	International filing date ( <i>day/month/year</i> ) 25 June 2004 (25.06.2004)	Priority date ( <i>day/month/year</i> ) 27 June 2003 (27.06.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant IPWIRELESS, INC.			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Box No. I  | Basis of the report   |
| <input checked="" type="checkbox"/> Box No. II | Priority  |
| <input type="checkbox"/> Box No. III           | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/> Box No. IV            | Lack of unity of invention  |
| <input checked="" type="checkbox"/> Box No. V  | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI            | Certain documents cited   |
| <input type="checkbox"/> Box No. VII           | Certain defects in the international application  |
| <input type="checkbox"/> Box No. VIII          | Certain observations on the international application   |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

Date of issuance of this report 03 January 2006 (03.01.2006)	
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  Dorothée Mülhausen  Telephone No. +41 22 338 87 40
Facsimile No. +41 22 740 14 35	

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

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	26 OCT 2004
	WIP

PCT

PC WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/GB2004/002728

International filing date (day/month/year)  
25.06.2004

Priority date (day/month/year)  
27.06.2003

International Patent Classification (IPC) or both national classification and IPC  
H04L12/56

Applicant  
IPWIRELESS, INC.

**1. This opinion contains indications relating to the following items:**

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1b/s(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/GB2004/002728

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
 This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:  
 a sequence listing  
 table(s) related to the sequence listing
  - b. format of material:  
 in written format  
 in computer readable form
  - c. time of filing/furnishing:  
 contained in the international application as filed.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/GB2004/002728

**Box No. II Priority**

1.  The following document has not been furnished:

- copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).  
 translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2.  This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or  
industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	2-5,7,8,13-16,18,19
	No: Claims	1,6,9-12,17,20-24
Inventive step (IS)	Yes: Claims	
	No: Claims	1-24
Industrial applicability (IA)	Yes: Claims	1-24
	No: Claims	

2. Citations and explanations

see separate sheet

**Re Item V.**

- 1 The following documents are referred to in this communication:

D1 : HAI JIANG ET AL: "TCP reno and vegas performance in wireless ad hoc networks" ICC 2001. 2001 IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS. CONFERENCE RECORD. HELSINKY, FINLAND, JUNE 11 - 14, 2001, IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS, NEW YORK, NY : IEEE, US, vol. VOL. 1 OF 10, 11 June 2001 (2001-06-11), pages 132-136, XP010552980 ISBN: 0-7803-7097-1

D2: IGARASHI K ET AL: "Mobility aware TCP congestion control" IEEE, vol. 2, 27 October 2002 (2002-10-27), pages 338-342, XP010619105

2 INDEPENDENT CLAIMS 1, 12 and 23

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parenthesis applying to this document): an arrangement for Transmission Control Protocol flow control in a communication system (page 133 column 2 paragraph B), the arrangement comprising:  
means for determining delay in a transmit buffer of the system (page 134 column 1 lines 15 to 17); and  
means for modifying TCP window size dependent on the determined delay (page 134 column 1 line 20 to 22: base\_RTT determined using buffer delay value and page 133 column 2 paragraph B: determined base\_RTT used for updating window size).

- 2.2 independent claims 12 and 23 define the same subject-matter as independent claim 1, in terms of a method and a computer program element.  
The subject-matter of independent claims 12 and 23 is not new in the sense of Article 33(2) PCT based on the same reasoning as 2.1 above.

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/GB2004/002728

**3 DEPENDENT CLAIMS 2-11,13-22, 24**

Dependent claims 2-11, 13-22, 24 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (claims 9,10,20,21) and/or inventive step (claims 2-8,11,13-19,22,24) (Article 33(2) and (3) PCT).

In particular, concerning claims 2 and 13, second cited document D2 discloses means for sending to a TCP server of the system in an acknowledge packet an indication of modified TCP window size (see D2 page 338 column 2 lines 35 to 45: an ACK is sent with an AWND value, said value being used for determining the updated SWND value at the sender).